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RAMTRON

2001 Annual Report



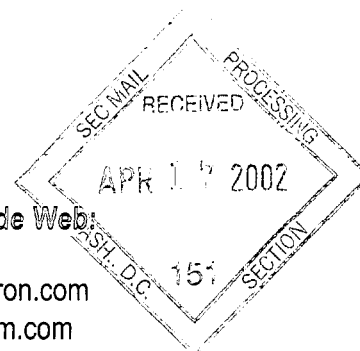
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Common Stock Symbol: RMTR

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For more information about Ramtron International Corporation or its technologies or products, contact
Ramtron Corporate Communications at the headquarters address above.

The following selected financial data should be read in conjunction with, and are qualified in their entirety by, the consolidated financial statements and related notes thereto and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included herein.

**RAMTRON INTERNATIONAL CORPORATION
SELECTED FINANCIAL DATA**

for the years ended December 31, 2001, 2000, 1999, 1998 and 1997
(in thousands, except per share data)

	2001	2000	1999	1998	1997
Net revenues	\$22,856	\$26,079	\$24,871	\$18,554	\$20,495
Gross margin, product sales	3,747 ⁽¹⁾	6,263	5,170 ⁽¹⁾	7,158 ⁽²⁾	3,863
Operating loss	(20,970)	(12,925)	(5,825)	(12,985)	(9,128)
Net loss applicable to common shares	(33,151)	(14,497)	(2,035)	(19,141)	(8,857)
Net loss per share - basic and diluted	(1.57)	(0.88)	(0.16)	(2.23)	(1.19)
Working capital	9,815 ⁽³⁾	6,943	7,285	5,246	4,819
Total assets	35,819	38,362	29,380	33,347	31,054
Total long-term debt	--	6,314	5,766	--	--
Stockholders' equity	19,039	21,501	13,323	17,062	17,536
Cash dividends per common share ⁽⁴⁾	--	--	--	--	--

(1) Excludes provision for inventory write-off

(2) Excludes loss on manufacturing contract of \$1.2 million

(3) Excludes deferred licensing and development revenue of \$5.7 million for which the Company has no future cash refund liability.

(4) The Company has not declared any cash dividends on its common stock and does not expect to pay any such dividends in the foreseeable future.



2001 Letter to Stockholders

To our Stockholders:

Ramtron's mission is to deliver innovative memory solutions that give customers a competitive advantage. To achieve this, we must gain an in-depth understanding of our customers' needs, continue to make advances in innovative technologies and execute our commitments flawlessly. This is the vision that will guide Ramtron in emerging as a leading supplier of high-value memory solutions. In order to realize this vision, we continued to invest in product development and strengthened strategic partnerships throughout 2001.

Financial Highlights

Total 2001 revenue was \$22.9 million, compared with \$26.1 million for 2000. Excluding a one-time charge of \$11.4 million for loss on the disposition of marketable equity securities, full-year net loss was \$21.8 million, or a loss of \$1.03 per share, compared with a net loss of \$14.5 million, or a loss of \$0.88 per share, a year ago. Including the one-time charge, full-year net loss applicable to common shares was \$33.1 million, or a loss of \$1.57 per share.

Total FRAM business revenue for 2001 decreased to \$7.4 million, compared with \$10.7 million for 2000, primarily due to reduced R&D revenue resulting from the completion of our advanced FRAM development program with Fujitsu. Specialty DRAM business revenue, including results from our Mushkin business unit, was \$15.4 million for 2001, compared with \$15.4 million the year earlier.

We are pleased to report that we completed an \$8-million financing in March 2002 that not only strengthened our cash position but also solidified our strategic partnership with Infineon Technologies. Infineon participated in the funding and also agreed in a memorandum of understanding to an expansion of our current technology partnership. The expanded technology partnership calls for secured manufacturing capacity for our Enhanced memory products through 2010, as well as access to Infineon's new process and design technologies still under development. We have also agreed to additional IP sharing and product development with Infineon, in order to expand the specialty memory businesses of both companies.

FRAM Business Highlights

In 2001, we made breakthrough advances in the cost structure for our FRAM products with the introduction of a 1-transistor/1-capacitor FRAM architecture. This advanced architecture is expected to significantly improve FRAM product margins and provide an economic foundation for new products in the future. We also introduced six new products and expanded our FRAM feature set with 3-volt operation and unlimited read/write endurance on select products. With these developments, our FRAM business is poised for growth as we anticipate key customer production programs and opportunities in metering, data collection and automotive applications will move into production in 2002 and 2003.

Enhanced Memory Highlights

Our Enhanced Memory Systems DRAM business made progress in 2001 with the introduction of one-transistor 72Mb DDR and NoBL Enhanced SRAM (ESRAM) products. These products, which have been designed in cooperation with Hewlett-Packard and Cypress Semiconductor, respectively, are expected to set new price/performance standards in the SRAM replacement market for network communications equipment and workstation and server cache applications. We expect our investment in ESRAM development during 2001 to provide revenue growth in 2002 and 2003 as well as a platform for future product development. With other one-transistor SRAM technologies anticipated to sell at nearly twice the price per bit of our ESRAM, we are in a strong position to penetrate the SRAM replacement market with future ESRAM products.

Ramtron's Mushkin business increased revenues in 2001, despite continued pricing pressure in the DRAM module market. An expanded sales force and a dedicated approach to best-in-class service, enabled Mushkin to increase overall revenues through expanded sales volume. Mushkin has grown beyond its original Internet sales model, with product now available at Fry's Electronics retail stores.

Licensing and Partnerships

Our licensing and development efforts during 2001 led to the signing of Texas Instruments and NEC as the eighth and ninth top semiconductor firms to endorse Ramtron's FRAM memory technology. Our work with Texas Instruments is expected to yield an advanced FRAM memory cell and architecture that are capable of establishing FRAM as the most feature rich nonvolatile memory solution in the semiconductor market. Although we are focused primarily on growing revenues in our product businesses, we will continue to address licensing and development opportunities as our technologies gain momentum in the industry.

Outlook

With our businesses positioned for growth, we're excited about our 2002 business plan. Our goals for the year are to produce solid revenue growth and turn profitable through increased sales and improved margins. We are also focused on broadening our customer base through market penetration in both the FRAM and Enhanced Memory Systems businesses to establish a foundation for growth in 2003.

Sincerely,



L. David Sikes
Chairman
March 29, 2002



William W. Staunton, III
Chief Executive Officer

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

OVERVIEW

The following discussion and analysis is intended to provide greater details of the results of operations and financial condition of the Company. The following discussion should be read in conjunction with the information under "Selected Financial Data" and the Company's consolidated financial statements and notes thereto and other financial data included elsewhere herein. Certain statements under this caption constitute "forward-looking statements" under the Reform Act which are subject to certain risks and uncertainties. The Company's actual results may differ significantly from the results discussed in such forward-looking statements. Factors that might cause such a difference include but are not limited to: (i) the timely completion of the development and qualification for manufacturing of the Company's new Enhanced-DRAM and FRAM products; (ii) broader customer acceptance of its EDRAM, ESDRAM and ESRAM products and FRAM products; (iii) the Company's ability to manufacture its products on a cost-effective and timely basis at its alliance foundry partners; (iv) the Company's ability to perform under existing alliance and joint development agreements and to develop new alliance and foundry relationships; (v) our ability to introduce timely new technologies and products and market acceptance of such technologies and products; (vi) the success of our on-going cost-reduction efforts; (vii) the timing and availability of manufacturing resources provided by our manufacturing and alliance partners for the production of our products; (viii) the alliance partners' willingness to continue development activities as they relate to their license agreements with the Company; (ix) the availability and related cost of future financing; (x) the retention of key personnel; (xi) the outcome of the Company's patent interference litigation proceedings; (xii) factors not directly related to the Company, such as competitive pressures on pricing, marketing conditions in general, competition, technological progression, product obsolescence and the changing needs of potential customers and the semiconductor industry in general; and (xiii) global economic and political conditions related to on-going military actions against terrorism. For additional information concerning these and other factors, see "Expected Future Results of Operations."

Since its inception, the Company has been primarily engaged in the research and development of ferroelectric technology and the design, development and commercialization of FRAM products and Enhanced-DRAM products. Revenue has been derived from the sale of the Company's FRAM and Enhanced-DRAM products beginning in 1992. The Company has also generated revenue under license and development agreements entered into with a limited number of established semiconductor manufacturers and involving the development of specific applications of the Company's technologies. Accordingly, fluctuations in the Company's revenues have resulted primarily from the timing of sig-

nificant product orders, the timing of the signing of license and development agreements, and the achievement of related performance milestones.

For 2001, 2000 and 1999, FRAM product sales represented approximately 26%, 22% and 27% of total product sales revenue, respectively, EMS product sales accounted for 7%, 42% and 73%, respectively, while Mushkin product sales represented 67%, 36% and 0% for the same periods. During these periods, product sales revenue accounted for approximately 75%, 70% and 53%, respectively, of total revenues, the remainder of which were generated principally from license and development fees, royalties and customer-sponsored research and development revenue. As a result of the Company's limited revenues as compared to its substantial ongoing product research and development costs and high manufacturing costs for certain of its products, the Company has incurred losses on a consolidated basis in each fiscal year since its inception and has required substantial capital infusions in the form of debt and equity financing.

The Company has entered into development and/or licensing arrangements with several major semiconductor manufacturers, namely Hitachi, Rohm, Toshiba, Fujitsu, Cypress Semiconductor, Hewlett Packard, Infineon and Texas Instruments to advance the development of both its FRAM products and Enhanced-DRAM products and to provide the Company with access to advanced semiconductor manufacturing processes and capacity for such products. The Company has also entered into license agreements with Samsung and NEC, although such arrangements do not include any development activities between the Company and the licensee or the availability of manufacturing capacity to the Company. In addition to these licensing and/or development arrangements, in December 1997, the Company entered into a FRAM development agreement with Asahi, which does not currently include a license to the Company's FRAM technology. In March 1999, the Company entered into a two-year joint development agreement with Fujitsu to pursue the development of advanced FRAM manufacturing processes. This agreement provided the Company with research and development funding and wafer fabrication processing equipment supplied by Fujitsu and was successfully completed during the fourth quarter of 2000.

RESULTS OF OPERATIONS - 2001 vs 2000

REVENUES. Total revenues for 2001 decreased \$3.2 million, or 12% from 2000.

Revenue from product sales decreased \$1.0 million, or 6%, for 2001, as compared to 2000. FRAM product revenues for 2001 increased \$553,000 to \$4.5 million, an increase of 14%, as compared to 2000. This increase is attributable in part to a wider product portfolio. During 2001, the Company introduced seven new FRAM products. At the end of 2001, the FRAM product portfolio contained seventeen products in multiple package configurations

serving both 3-volt and 5-volt product applications and density ranges of 4-kilobit to 256-kilobit.

Product revenues from the Company's EMS subsidiary decreased \$6.4 million for 2001, to \$1.2 million, a decrease of 85% as compared to 2000. The decrease in EMS product sales is primarily attributable to a substantial decline in 4-megabit product sales as this product line approaches end-of-life. The Company is no longer manufacturing its 4-megabit product and expects to sell its remaining inventories during 2002.

During 2001, the Company's Mushkin subsidiary, which was acquired in June 2000, generated \$11.5 million in product revenue. Mushkin's product revenue during the six months of Ramtron ownership in 2000 was \$6.7 million. During 2001, Mushkin experienced a significant increase in unit sales at the same time it was experiencing severe declines in average selling prices consistent with world-wide trends in DRAM memory markets.

The Company recognized \$2.7 million in license and development fee revenue during 2001 as compared to \$2.0 million in 2000. License and development fee revenue in 2001 resulted from license and development partner agreements the Company entered into with Texas Instruments and NEC during 2001. License and development partner revenue in 2000 resulted from the achievement of contractual milestones in existing licensee and development partner agreements.

During 2001, the Company recognized royalty revenue related to FRAM license and development partner agreements of \$295,000 compared with \$188,000 recorded in 2000.

Customer-sponsored research and development revenue for 2001 decreased by \$3.0 million to \$2.6 million, a decrease of 53% as compared to 2000. During 2000, the Company was engaged with Fujitsu for the purpose of developing a 0.35 micron advanced FRAM manufacturing process, which generated revenue of \$4.0 million. The Fujitsu program was successfully completed in the fourth quarter of 2000. In addition, the Company recognized customer-sponsored research and development revenues in 2001 and 2000 from product development agreements with Cypress Semiconductor Corporation and Hewlett Packard for the development of next generation Enhanced-DRAM products.

COST OF SALES. Overall cost of product sales as a percentage of product revenues during 2001 increased from 66% to approximately 78% as compared with 2000. Cost of sales associated with the Company's FRAM products increased to 81% in 2001 compared to 74% in 2000. This increase is primarily attributable to high production costs for initial deliveries of product into the Ampy metering program, a major customer program to replace 27 million utility meters in Italy over the next 3 years. The pre-production phase of this program is complete with the production ramp beginning in the first quarter of 2002. A design revision to reduce costs

is complete and production wafers are currently being manufactured. The Company expects to consume the remaining high cost units and begin delivery of the lower cost parts during the first quarter of 2002. EMS cost of product sales as a percentage of product revenues remained relatively flat at 49% in 2001 as compared to 50% in 2000. Mushkin cost of product sales as a percentage of product revenue increased from 77% to 80% when compared to 2000. The increase in Mushkin's cost of product sales as a percentage of product revenues is principally due to decreases in the average selling prices per megabit of memory, due to extreme pricing pressure in world-wide commodity DRAM markets during 2001.

PROVISION FOR INVENTORY WRITE-DOWN. During 2001, the Company increased its provision for excess and obsolete inventory by \$912,000. The Company determined it had excess inventories of certain FRAM and EDRAM product built for selected market segments. No such charge occurred in 2000.

RESEARCH AND DEVELOPMENT. During 2001 research and development costs (including customer-sponsored research and development) increased \$3.2 million to \$16.6 million as compared to \$13.4 million in 2000. During 2001 and 2000 the Company incurred research and development expenses related to new product development programs in both the Company's FRAM and Enhanced-DRAM business units. Throughout 2000 the Company was engaged in a 0.35 micron advanced FRAM manufacturing process development program with Fujitsu. This development program provided the Company with research and development funding and wafer fabrication processing equipment supplied by Fujitsu and was successfully completed in the fourth quarter of 2000. Funding to Ramtron in 2000 from this agreement totaled \$4.0 million. The Company anticipates that overall research and development costs will decrease during 2002 as the development programs with Cypress Semiconductor and Hewlett Packard near completion and increasing FRAM product sales require the FRAM engineering resources to devote increased time to production activities.

SALES, GENERAL AND ADMINISTRATIVE. Sales, general and administrative ("SG&A") expenses for 2001 increased \$1.2 million to \$12.6 million, an increase of 10% as compared to 2000. This increase is primarily attributable to incremental general and administrative costs and goodwill amortization related to the Company's Mushkin subsidiary, which was acquired in June 2000. Mushkin selling, general and administrative expenses for 2001 were \$3.5 million, including \$1.3 million related to goodwill amortization. During 2000 Mushkin's selling, general and administrative expenses were \$1.4 million, including \$700,000 related to goodwill amortization. Increases in SG&A expenses related to our Mushkin subsidiary are offset by reductions in consulting fees, foreign withholding tax payments on licensing revenues and sales commissions to outside sales representatives as EMS product revenues declined year over year.

The Company believes SG&A expenses for 2002 will decrease slightly as compared to 2001, primarily due to decreased goodwill amortization expenses, partially offset by increased sales and marketing expenses. The Company expects increases in sales representative commissions as product sales increase and increased marketing expenses related to the promotion of its products.

STOCK-BASED COMPENSATION. During 2001, the Company recognized \$202,000 of non-cash expenses for stock-based compensation as compared to \$2.2 million in 2000. In September 1999, certain officers of the Company were granted options to purchase common stock of the Company at \$2.25 per share (the closing price on the date of grant), subject to stockholder approval to amend the Company's 1995 Stock Option Plan. These options vested 50% on March 31, 2000 and 50% on March 31, 2001. The Company's shareholders approved the amendment to the 1995 Plan on December 22, 1999. On that date, the intrinsic value of the options of \$2,578,000 was recorded as deferred compensation. During the first quarter of 2001 the Company recognized the remaining compensation expense of \$202,000. The Company does not expect to incur stock based compensation expenses during 2002.

INTEREST EXPENSE. Related party interest expense in 2001 increased \$21,000, totaling \$1.2 million, primarily related to non-cash amortization of a note payable discount for the valuation of stock warrants issued in connection with the amendment of the Company's credit facility with the National Electrical Benefit Fund.

MINORITY INTEREST IN SUBSIDIARY. Minority interest in losses of the Company's EMS subsidiary of approximately \$267,000 was recognized in 2001 as compared to \$706,000 in 2000. The minority interest reflects Infineon's share of EMS losses for 2001 and 2000. Minority interest in net losses of EMS were not recorded after March 31, 2001, due to the minority interest balance being reduced to zero on that date.

CUMULATIVE EFFECT OF ACCOUNTING CHANGE. In December 1999, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 101, "Revenue Recognition" ("SAB No. 101"), which provides guidance on the recognition, presentation and disclosure of revenue in financial statements. As a result, effective January 1, 2000, the Company changed its method of recognizing revenue on certain payments resulting from technology licensing activities. In prior years the Company recognized non-refundable technology license agreement payments when billed in accordance with contractual arrangements. In accordance with SAB No. 101's guidance, the Company now recognizes revenues related to technology licensing agreements over the licensing and/or royalty bearing period. The effect of this change in revenue recognition was to increase income before the cumulative effect of the accounting change by approximately \$135,000 or \$0.01 per share in 2001 and \$150,000 or \$0.01 per share in 2000. The cumulative effect of retroactively applying this change in account-

ing principle to periods prior to 2000 resulted in a one-time non-cash charge of \$1.5 million and is included in net loss for the year ended December 31, 2000.

NET LOSS APPLICABLE TO COMMON SHARES. During 2001, combined preferred stock dividends, and accretion of redeemable preferred stock increased by \$40,000 to \$163,000. This increase is attributable to a 2% increase in the dividend rate as a result of the Company's election to pay required dividends in the Company's preferred stock instead of cash.

RESULTS OF OPERATIONS - 2000 vs 1999

REVENUES. Total revenues for 2000 increased \$1.2 million, or 5%, from 1999.

Revenue from product sales increased \$5.1 million, or 39%, for 2000, as compared to 1999. EMS product revenues for 2000 decreased \$2.0 million to \$7.6 million, a decrease of 21% as compared to 1999. The decrease in EMS product sales is primarily attributable to a decline in the EMS 4-megabit product sales, due to decreasing demand from a small number of customers. Product sales revenue of the Company's Mushkin subsidiary, which was acquired in June 2000, was \$6.7 million.

FRAM product revenues for 2000 increased \$480,000 to \$4.0 million, an increase of 14%, as compared to 1999. This increase is attributable in part to increased availability of FRAM products from the Company's foundry partners, a wider product portfolio due to bringing new products to market and the selective reduction of average selling prices for high volume EEPROM replacement programs to take advantage of shortages in the EEPROM market. During 2000, the Company introduced six new FRAM products. At the end of 2000, the FRAM product portfolio contained ten products in multiple package configurations with a density range of 4-kilobit to 256-kilobit.

The Company recognized \$2.0 million in license and development fee revenue during 2000 as compared to \$5.2 million in 1999. License and development fee revenue in 2000 and 1999 resulted from the achievement of contractual milestones in existing licensee and development partner agreements.

During 1999, the Company recognized royalty revenues of \$1.5 million compared with \$188,000 of royalty revenue recorded in 2000. The \$1.5 million nonrefundable payment was received under a FRAM licensing agreement with an existing licensee. The payment was consideration for a direct licensing right to use Ramtron intellectual property in the design, manufacture and sale of RF/ID products. During 2000, the Company recorded a \$1.5 million cumulative effect of an accounting change regarding such revenues as required by newly issued Staff Accounting Bulletin No. 101. Had the Company accounted for such license fees in 1999

consistent with the method adopted in 2000, no royalty revenue would have been recognized in 1999.

Customer-sponsored research and development revenue for 2000 increased by \$607,000 to \$5.6 million, an increase of 12% as compared to 1999. During 2000 and 1999, the Company was engaged with Fujitsu for the purpose of developing a 0.35 micron advanced FRAM manufacturing process. Customer-sponsored research and development revenue of \$4.0 million each year is attributable to the 0.35 micron Fujitsu process development program. The Fujitsu program was successfully completed in the fourth quarter of 2000. In addition, the Company recognized customer-sponsored research and development revenues in 2000 from product development agreements with Cypress Semiconductor Corporation and Hewlett Packard for the development of next generation Enhanced-DRAM products.

COST OF SALES. Overall cost of product sales as a percentage of product revenues during 2000 increased from 61% to approximately 66% as compared with 1999. Cost of sales associated with the Company's FRAM products remained relatively flat at 75% in 2000 compared to 74% in 1999. EMS cost of product sales as a percentage of product revenues for 2000 decreased from 56% to 51% when compared to 1999. Cost of product sales in the Company's Mushkin subsidiary which was acquired in June 2000 was 77%.

PROVISION FOR INVENTORY WRITE-DOWN. During 1999, the Company increased its provision for excess and obsolete inventory by \$1.2 million. The Company determined it had excess inventories of a specialty FRAM product built for a selected market segment. Additionally, the Company determined that certain FRAM products manufactured in the Colorado Springs fabrication facility, prior to receiving product from its foundry partners, should be scrapped due to inferior performance attributes as compared to the same product manufactured by the Company's foundry partners. No such charge occurred in 2000.

RESEARCH AND DEVELOPMENT. During 2000, research and development costs (including customer-sponsored research and development) increased \$1.3 million to \$13.4 million as compared to \$12.1 million in 1999. During 2000 and 1999, the Company incurred research and development expenses related to new product development programs in both the Company's FRAM and Enhanced-DRAM business units. Throughout 2000 and 1999 the Company was engaged in a 0.35 micron advanced FRAM manufacturing process development program with Fujitsu. This development program provided the Company with research and development funding and wafer fabrication processing equipment supplied by Fujitsu and was successfully completed in the fourth quarter of 2000. Funding to Ramtron in 2000 and 1999 from this agreement totaled \$4.0 million each year.

SALES, GENERAL AND ADMINISTRATIVE. Sales, general and administrative expenses for 2000 increased \$2.1 million to \$11.4 million, an increase of 22% as compared to 1999. This increase is primarily attributable to non-recurring charges related to financing activities and incremental general and administrative costs and goodwill amortization related to the Company's Mushkin subsidiary, which was acquired in June 2000. Mushkin selling, general and administrative expenses for 2000 were \$1.4 million, including \$700,000 related to goodwill amortization.

STOCK-BASED COMPENSATION. During 2000, the Company recognized \$2.2 million of non-cash expenses for stock-based compensation as compared to \$155,000 in 1999. In September 1999, certain officers of the Company were granted options to purchase common stock of the Company at \$2.25 per share (the closing price on the date of grant), subject to stockholder approval to amend the Company's 1995 Stock Option Plan. These options vested 50% on March 31, 2000 and 50% on March 31, 2001. The Company's shareholders approved the amendment to the 1995 Plan on December 22, 1999. On that date, the aggregate intrinsic value of the options of \$2,578,000 was recorded as deferred compensation.

INTEREST EXPENSE. Related party interest expense in 2000 increased \$247,000, totaling \$1.2 million, and is primarily related to non-cash amortization of a note payable discount for the valuation of stock warrants issued in connection with the amendment of the Company's credit facility with the National Electrical Benefit Fund.

MINORITY INTEREST IN SUBSIDIARY. Minority interest in losses of the Company's EMS subsidiary of approximately \$700,000 was recognized in 2000. This increase is the result of the sale of 20% of EMS, previously a wholly owned subsidiary of the Company, to Infineon in January 2000. The Company received a license valued at approximately \$2.0 million for the 20% interest in EMS and a call on wafer manufacturing capacity at Infineon.

CUMULATIVE EFFECT OF ACCOUNTING CHANGE. In December 1999, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 101, "Revenue Recognition" ("SAB No. 101"), which provides guidance on the recognition, presentation and disclosure of revenue in financial statements. As a result, effective January 1, 2000, the Company changed its method of recognizing revenue on certain payments resulting from technology licensing activities. In prior years the Company recognized non-refundable technology license agreement payments when billed in accordance with contractual arrangements. In accordance with SAB No. 101's guidance, the Company now recognizes revenues related to technology licensing agreements over the licensing and/or royalty bearing period. The effect of this change in revenue recognition for 2000 was to increase income before the cumulative effect of the accounting change by approximately \$150,000 or \$0.01 per share. The cumulative effect of retroactively applying this change in accounting principle to periods prior to 2000 result-

ed in a one-time non-cash charge of \$1.5 million and is included in net loss for the year ended December 31, 2000. The results of periods prior to 2000 were not restated as a result of this accounting change. Had this accounting policy been applied to prior periods, net loss and net loss per common share for 1999 would have been \$7.7 million and \$0.28, respectively.

NET LOSS APPLICABLE TO COMMON SHARES. During 2000, combined preferred stock dividends, and accretion of redeemable preferred stock declined by \$761,000 to \$123,000. This decrease is due to the preferred stock restructuring in 1999.

EXPECTED FUTURE RESULTS OF OPERATIONS

The Company's ability to significantly increase product sales and achieve profitability will depend on several factors, including: (i) the completion of the development and qualification for manufacturing of new FRAM products; (ii) the completion of the development and qualification for manufacturing of the Company's new Enhanced-DRAM products; (iii) wider customer acceptance of its FRAM and Enhanced-DRAM products; (iv) market acceptance of new FRAM and Enhanced-DRAM products which may be developed; (v) the Company's ability to manufacture its products on a cost-effective and timely basis through alliance foundry operations and third-party foundry sources; (vi) the availability and related cost of future financing; (vii) factors not directly related to the Company, including market conditions, competition, technological progression, product obsolescence and the changing needs of potential customers and the semiconductor industry in general; (viii) memory market conditions and competitive forces which may negatively impact average selling prices of the Company's products; and (iv) global economic and political conditions related to on-going military actions against terrorism.

The Company is continuing its efforts to improve and increase commercial production and sales of its FRAM and Enhanced-DRAM products, decrease the cost of producing such products and develop and commercialize new FRAM and Enhanced-DRAM products. The Company expects revenues will continue to be sporadic in the foreseeable future until the Company's products gain wider market acceptance, milestones under existing customer-sponsored product development programs are achieved, new customer-sponsored research and development programs are entered into, new license arrangements are entered into and milestones under the Company's existing and any new license and development agreements are achieved.

Product revenue growth in 2002 will be highly dependent upon product sales to one or more key customers. In June 2000, the Company entered into a volume purchase agreement with Ampy Automaton, Ltd. to supply approximately 27 million units of FRAM product over a 3 to 4 year period. These products will be used in a utility meter replacement program at ENEL SpA, a leading supplier of power in Italy. During 2001 the Company supplied approx-

imately 1 million units into the pre-production phase of this program and expects this program to represent a significant portion the Company's of 2002 FRAM product revenues as the program moves from the pre-production phase to full production. The Company's EMS business unit has been engaged with Cypress Semiconductor and Hewlett Packard to develop ESRAM products. The Company's ESRAM products are expected to be available for sale in 2002 and will be the primary source of product revenue for EMS. Hewlett Packard will use the ESRAM in a new line of server products and is expected to be the primary customer for the ESRAM product during the second half of 2002. Any delay in the production ramp of these programs could significantly impact revenue growth expectations for 2002.

To gain access to advanced CMOS manufacturing processes and facilities, Ramtron has entered into manufacturing alliances and licensing agreements for FRAM products with companies having or constructing advanced memory products manufacturing capability, including Rohm, Hitachi, Toshiba, Fujitsu, Infineon and Texas Instruments. Since the purchase or construction of an advanced manufacturing facility capable of mass producing memory devices would require a capital outlay well beyond the Company's current capital resources, the Company believes that the most suitable alternative is this strategic-alliance approach, which the Company believes will enable it to develop, manufacture and sell FRAM products more rapidly and cost effectively than any other available alternative. Ramtron's intention is to utilize current and future alliance relationships as foundry sources for FRAM products in order to provide the Company with low-cost, high-volume, high-quality FRAM products for resale to customers.

Although currently Infineon is the only foundry for the Company's Enhanced-DRAM products, the Company's goal is to produce Enhanced-DRAMs through strategic alliances and foundry arrangements with more than one major semiconductor company and to expand the market for Enhanced-DRAMs by making Enhanced-DRAM products available from multiple sources. This approach avoids the high capital costs associated with DRAM manufacturing that would have otherwise been incurred by the Company if it had chosen to manufacture these products with Company-provided resources.

As a result of industry wide oversupply of semiconductor memory products, significant price decreases within the industry have occurred during the past several years. Historically, the semiconductor memory industry has experienced declining average selling prices, and the Company believes these declines will continue to affect the Company. Accordingly, the Company's ability to increase revenues and margins on its products depends on the Company's ability to increase unit sales volumes and to introduce new products with higher margins or further reduce its manufacturing costs to offset the declines in average selling prices. Absent these actions, declining average selling prices would have an adverse effect on the Company's gross profit margins and the overall finan-

cial performance of the Company. There can be no assurance that the Company will be able to increase unit sales volumes, introduce new, higher margin products or reduce its manufacturing costs in the future.

LIQUIDITY AND CAPITAL RESOURCES

Since its inception, because revenues generated from operations and licensing have been insufficient to fund operations, the Company has depended for funding principally on its ability to raise equity capital through private placements of stock and lines of credit with a principal stockholder of the Company.

In 1995, the Company entered into a loan facility, bearing interest at 12%, with the National Electrical Benefit Fund (the "Fund"). During 1999, the Company and the Fund agreed to amend the terms of the credit facility extending the maturity date to March 15, 2002, decreasing the interest rate to 8% and requiring the Company maintain certain financial ratios, as defined in the loan document. In July 2001, the note was again amended to extend the maturity date to July 12, 2002. The Company's borrowings under the Fund's credit facility totaled approximately \$7.0 million. On August 22, 2001, the Company exercised the prepayment provision of the note by notifying the Fund of the Company's intention to prepay the balance due no later than January 2, 2002. On November 9, 2001, the Fund elected to accept payment in lieu of a conversion to the Company's common stock. All principal and accrued interest due, totaling approximately \$7.1 million, was paid to the Fund on November 15, 2001.

The Company raised funds through the private placement of preferred and common stock in 1993, 1997, 1998 and 1999. Also, the Company and Infineon entered into a share purchase agreement dated December 14, 2000 pursuant to which Infineon agreed to invest approximately \$30 million in the Company, \$10 million in cash and \$20 million in Infineon common stock (443,488 shares), in exchange for 4,430,005 shares of the Company's common stock. The initial closing occurred February 2, 2001, providing the Company with \$10 million in exchange for 1,476,668 shares of common stock. The final closing was completed on March 30, 2001, providing the Company 443,488 Infineon shares. All 443,488 Infineon shares were sold by the Company during 2002, generating approximately \$8.6 million in cash.

On March 14, 2002, the Company announced it signed an agreement to complete a new round of funding for gross proceeds of \$8.0 million. The transaction is expected to close before March 31, 2002. The Company will issue \$8.0 million of 5 year, 5% fixed rate, convertible debentures to Infineon, Halifax Fund, managed by The Palladin Group, L.P. and Bramwell Capital Corporation, managed by Cavallo Capital. The debentures are convertible into the Company's common stock at a fixed conversion price of \$3.76, which is equal to the five-day volume weighted average price ("VWAP") of the Company's common stock prior to the transaction

signing. The Company may force conversion of the debenture after 18 months, provided the VWAP of the Company's common stock is at least 200% of the conversion price for 20 or more of 30 consecutive trading days. The debenture is secured by a Deed of Trust on the Company's headquarters facility in Colorado Springs, Colorado and certain accounts receivable. In addition, 701,754, 5-year common stock warrants will be issued to the investors at an exercise price of \$4.28 per share.

Cash and cash equivalents decreased by \$4.0 million in 2001 to \$3.3 million. Cash flow used for operations increased from \$8.7 million in 2000 to \$15.0 million in 2001. Cash used to fund operating losses, after non-cash charges, increased \$9.0 million in 2001 as compared to 2000. Additionally, working capital requirements decreased approximately \$2.6 million as compared to 2000.

Inventories increased by 4% in 2001 from \$7.2 million at the end of 2000 to \$7.5 million at the end of 2001.

Accounts payable and accrued liabilities decreased on a year-over-year basis from \$6.5 million at the end of 2000 to \$4.9 million at the end of 2001. This decrease is primarily attributable to decreased FRAM inventory purchases in the fourth quarter of 2001 as compared to the same period in 2000 and a reduction in accrued liabilities due to the Fund.

Deferred revenue increased \$7.9 million from \$2.9 million at the end of 2000 to \$10.8 million at the end of 2001. This increase is primarily related to new FRAM licensing and technology development agreements the Company entered into during 2001 with Texas Instruments and NEC.

Cash generated from investing activities was \$7.6 million in 2001, compared to \$500,000 used in investing activities in 2000. The Company generated approximately \$8.6 million from the sale of 443,488 shares of Infineon common stock. Capital expenditures were \$433,000 in 2001 compared to \$635,000 in 2000. Expenditures for intellectual property remained relatively flat at \$558,000 in 2001 and \$556,000 in 2000.

Cash provided by financing activities was \$3.4 million in 2001. The Company generated approximately \$10.0 million from the sale of common stock to Infineon pursuant to a share purchase agreement dated December 14, 2000. The Company used \$7.0 million to repay the note payable to the Fund. In 2000, net cash provided by financing activities was \$5.8 million, which was raised from the issuance of common stock, primarily from the exercise of common stock warrants.

Equipment and plant expenditures are expected to be minimal during 2002.

The Company has incurred net losses from operations since inception. The Company's ability to achieve profitable operations is sub-

ject to significant risks and uncertainties including, but not limited to, success in raising additional financing to fund operations, achieving forecasted revenues on supply arrangements and entering into additional license and research and development arrangements. There is no guarantee that the Company will be successful in addressing such risks.

The Company's current business plan contemplates significant revenue growth in 2002 due to the introduction of new products and established supply agreements. In addition, the Company obtained \$8 million in cash in March 2002 from a private placement of convertible debt (see Note 16). The Company believes these factors, along with cash on hand as of December 31, 2001, will be sufficient to fund its operations at least through December 31, 2002.

In view of the Company's expected future working capital requirements in connection with the design, manufacturing and sale of its FRAM and Enhanced-DRAM products, the Company's projected continuing research and development expenditures, other operating expenditures and the results of pending patent litigation, the Company may be required to seek additional equity or debt financing soon after year-end 2002. There is no assurance, however, that the Company will be able to obtain such financing on terms acceptable to the Company, or at all. Any issuance of common or preferred stock to obtain additional funding would result in further dilution of existing stockholders' interests in Ramtron. The inability to obtain additional financing when needed would have a material adverse effect on our business, financial condition and operating results and could adversely affect the Company's ability to continue business operations.

CONTRACTUAL COMMITMENTS. For more information on the Company's contractual obligations on operating leases and contractual commitments, see Notes 5 and 7 of the Notes to Consolidated Financial Statements. At December 31, 2001, the Company's commitments under these obligations were as follows (in thousands):

	Operating Leases	NEBF Consulting Fee*	Total
2002	\$1,253	\$80	\$1,333
2003	982	80	1,062
2004	739	80	819
2005	16	80	96
2006	15	80	95
Total	<u>\$3,005</u>	<u>\$400</u>	<u>\$3,405</u>

*These consulting fees are required to be paid to NEBF as long as NEBF owns at least 5% of the outstanding shares of the Company.

LEGAL MATTERS. The Company is currently involved in a patent interference proceeding (see "Patent Interference Proceeding" and

Note 14 in the 2001 consolidated financial statements). If the Company is ultimately unsuccessful in these proceedings, there would be no retroactive cash payment requirements from the Company to the junior party as a result of such an adverse decision. While the Company cannot accurately estimate the financial effects of such a result, the Company believes that it could, depending on when a final non-appealable judgment is ultimately rendered, materially adversely affect the Company's FRAM product business and operating results and, thus, have a materially adverse effect on the Company's financial condition as a whole.

CRITICAL ACCOUNTING POLICIES. The Company's discussion and analysis of its financial condition and results of operations are based upon its consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an on-going basis, the Company evaluates its estimates, including those related to bad debts, inventories, long-lived assets, income taxes, and contingencies and litigation. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

The Company believes the following critical accounting policies affect its more significant judgments and estimates used in the preparation of its consolidated financial statements.

The Company records license and customer sponsored research and development revenue on arrangements entered into with customers. The revenue recorded by the Company in each reporting period is dependent upon estimates regarding the cost of projects and the achievement of milestones. Changes in estimates regarding these matters could result in revisions to the amount of revenue recognized on these arrangements.

The Company writes down its inventory for estimated obsolescence or lack of marketability for the difference between the cost of inventory and the estimated market value based upon assumptions about future demand and market conditions. If actual market conditions are less favorable than those projected by management, additional inventory write-downs may be required.

The Company reviews the carrying values of its long-lived assets, including goodwill and identifiable intangibles, whenever events or changes in circumstances indicate that such carrying values may not be recoverable. Under current standards, the assets must be carried at historical cost if the projected cash flows from their use

will recover their carrying amounts on an undiscounted basis and without considering interest. However, if projected cash flows are less than their carrying value, even by one dollar, the long-lived assets must be reduced to their estimated fair value. Considerable judgment is required to project such cash flows and, if required, estimate the fair value of the impaired long-lived asset. Effective January 1, 2002, the Company must adopt SFAS No. 142. SFAS No. 142 provides a more restrictive fair value test to evaluate goodwill and long-lived asset impairment. Upon adoption of SFAS No. 142, the carrying value of goodwill will be evaluated based upon its current fair values as if the purchase price allocation occurred on January 1, 2002. The Company is currently evaluating the impact of adopting SFAS No. 142.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk represents the risk of loss that may impact the financial positions, results of operations or cash flows of the Company due to adverse changes in financial and commodity market prices and rates. The Company is exposed to market risk in the areas of changes in United States interest rates and changes in foreign currency exchange rates as measured against the United States dollar. These exposures are directly related to its normal operating activities. The Company currently has no derivative financial instruments.

The Company manages interest rate risk by investing its excess cash in cash equivalents bearing variable interest rates, which are tied to various market indices. The Company does not believe that near-term changes in interest rates will result in a material effect on

future earnings, fair values or cash flows of the Company. The net effect of a 10% change in interest rates on outstanding cash and cash equivalents at December 31, 2001 would have less than an \$100,000 effect on the earnings or cash flows.

The Company has a wholly owned subsidiary located in Japan. The operating costs of this subsidiary are denominated in Japanese Yen, thereby creating exposures to exchange rate variations. To date, this subsidiary has had only limited operations and is expected to continue to have limited operations in the foreseeable future, and, therefore, the Company does not believe any changes in exchange rates will have a material effect on future earnings, fair values or cash flows of the Company. The Company does not believe that reasonably possible near-term variations in exchange rates will result in a material effect on future earnings, fair values or cash flows of the Company, and therefore, the Company has chosen not to enter into foreign currency hedging instruments. There can be no assurance that such an approach will be successful, especially in the event of a significant and sudden change in Japanese currency valuation.

Average selling prices of the Company's products have not increased significantly as a result of inflation during the past several years, primarily due to intense competition within the semiconductor industry. The effect of inflation on the Company's costs of production has been minimized through improvements in production efficiencies. The Company anticipates that these factors will continue to minimize the effects of any foreseeable inflation and other price pressures within the industry and markets in which the Company participates.

RAMTRON INTERNATIONAL CORPORATION
CONSOLIDATED BALANCE SHEETS
December 31, 2001 and 2000
(in thousands, except share data)

	2001	2000
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 3,259	\$ 7,256
Accounts receivable, less allowances of \$294 and \$261, respectively	5,224	1,710
Inventories	7,475	7,190
Other current assets	244	147
Total current assets	16,202	16,303
Property, plant and equipment, net	4,941	5,595
Intangible assets, net	14,676	16,464
Total assets	<u>\$ 35,819</u>	<u>\$ 38,362</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 3,900	\$ 4,556
Accrued liabilities	1,038	1,915
Deferred revenue	7,152	2,889
Total current liabilities	12,090	9,360
Deferred revenue	3,612	--
Long-term promissory note, the Fund, net of unamortized discount of \$686 as of December 31, 2000	--	6,314
Total liabilities	15,702	15,674
Minority interest in subsidiary	--	267
Redeemable preferred stock, \$.01 par value, 10,000,000 shares authorized: 1,092 and 955 shares issued and outstanding, respectively, entitled to \$1,000 per share plus accrued and unpaid dividends in liquidation	1,078	920
Stockholders' equity:		
Common stock, \$.01 par value, 50,000,000 authorized: 22,081,443 and 17,477,488 shares issued and outstanding, respectively	221	175
Deferred compensation	--	(202)
Additional paid-in capital	231,479	201,038
Accumulated deficit	(212,661)	(179,510)
Total stockholders' equity	19,039	21,501
Total liabilities and stockholders' equity	<u>\$ 35,819</u>	<u>\$ 38,362</u>

See accompanying notes.

RAMTRON INTERNATIONAL CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS
For the years ended December 31, 2001, 2000 and 1999
(in thousands, except per share amounts)

	2001	2000	1999
Revenue:			
Product sales	\$ 17,213	\$ 18,262	\$ 13,148
License and development fees	2,704	2,000	5,200
Royalties	295	188	1,501
Customer-sponsored research and development	2,644	5,629	5,022
	<u>22,856</u>	<u>26,079</u>	<u>24,871</u>
Costs and expenses:			
Cost of product sales	13,466	11,999	7,978
Provision for inventory write-off	912	--	1,178
Research and development	14,216	8,013	7,170
Customer-sponsored research and development	2,438	5,397	4,880
Sales, general and administrative (exclusive of non-cash compensation expense shown below)	12,592	11,412	9,335
Stock-based compensation	202	2,183	155
	<u>43,826</u>	<u>39,004</u>	<u>30,696</u>
Operating loss	(20,970)	(12,925)	(5,825)
Interest expense, related party	(1,182)	(1,161)	(914)
Other income, net	279	506	541
Minority interest in net loss of subsidiary	267	706	--
Loss on disposition of marketable equity securities	(11,382)	--	--
Net loss before cumulative effect of accounting change	(32,988)	(12,874)	(6,198)
Cumulative effect of accounting change	--	(1,500)	--
Net loss	<u>\$(32,988)</u>	<u>\$(14,374)</u>	<u>\$(6,198)</u>
Loss per common share:			
Net loss	\$(32,988)	\$(14,374)	\$(6,198)
Dividends on redeemable preferred stock	(139)	(99)	(396)
Accretion of redeemable preferred stock	(24)	(24)	(488)
Gain on preferred stock settlement	--	--	5,047
Net loss applicable to common shares	<u>\$(33,151)</u>	<u>\$(14,497)</u>	<u>\$(2,035)</u>
Net loss per share - basic and diluted:			
Net loss per share before cumulative effect of accounting change ..	\$(1.57)	\$(0.79)	\$(0.16)
Cumulative effect of accounting change	--	(0.09)	--
Net loss per common share	<u>\$(1.57)</u>	<u>\$(0.88)</u>	<u>\$(0.16)</u>
Weighted average shares outstanding:			
- Basic and diluted	<u>21,177</u>	<u>16,542</u>	<u>12,815</u>

See accompanying notes.

RAMTRON INTERNATIONAL CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
For the years ended December 31, 2001, 2000 and 1999
(in thousands)

	2001	2000	1999
Cash flows from operating activities:			
Net loss.....	\$(32,988)	\$(14,374)	\$(6,198)
Adjustments used to reconcile net loss to net cash used in operating activities:			
Cumulative effect of accounting change	--	1,500	--
Depreciation and amortization	3,433	3,146	2,290
Amortization of debt discount	686	548	176
Warrants and stock options issued for services	123	182	--
Stock based compensation	202	2,183	155
Provision for inventory write-off	912	--	1,178
Minority interest in subsidiary	(267)	(706)	--
Loss on disposition and impairment of marketable equity securities ..	11,382	--	--
Changes in assets and liabilities:			
Accounts receivable	(3,514)	465	(977)
Inventories	(1,197)	(2,641)	(48)
Accounts payable and accrued liabilities	(1,533)	1,998	(573)
Accrued interest	--	(230)	214
Deferred revenue	7,875	(777)	1,001
Other	(126)	51	86
Net cash used in operating activities	(15,012)	(8,655)	(2,696)
Cash flows from investing activities:			
Cash from acquired subsidiary	--	665	--
Purchase of property, plant and equipment	(433)	(635)	(316)
Expenditures for intellectual property	(558)	(556)	(2,951)
Proceeds from sale of investment	8,618	--	75
Net cash provided by (used in) investing activities	7,627	(526)	(3,192)
Cash flows from financing activities:			
Payments on note payable, related party	(7,000)	--	(550)
Issuance of common stock, net of expenses	10,388	5,836	5,176
Preferred stock settlement	--	--	(3,374)
Net cash provided by financing activities	3,388	5,836	1,252
Net decrease in cash and cash equivalents	(3,997)	(3,345)	(4,636)
Cash and cash equivalents, beginning of period	7,256	10,601	15,237
Cash and cash equivalents, end of period	<u>\$ 3,259</u>	<u>\$ 7,256</u>	<u>\$ 10,601</u>

See accompanying notes.

RAMTRON INTERNATIONAL CORPORATION
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

For the years ended December 31, 2001, 2000 and 1999
(in thousands, except par value amounts)

	Convertible Preferred Stock (\$0.01 Par Value)		Common Stock (\$0.01 Par Value)		Deferred Compensation		Additional Paid-in Capital		Accumulated Deficit		Accumulated Other Comprehensive Income (Loss)		Comprehensive Income (Loss)		Total Stockholders' Equity	
	Shares	Amount	Shares	Amount												
Balances, December 31, 1998	10	\$8,966	12,085	\$121		\$	\$165,916		\$ (157,941)		\$		\$		\$17,062	
Preferred stock discount accretion	-	488	-	-	-	-	-	-	(488)	-	-	-	-	-	-	-
Preferred stock dividend	-	360	-	-	-	-	-	-	(360)	-	-	-	-	-	-	-
Settlement of preferred stock	(9)	(8,945)	1,571	16	-	-	5,555	-	-	-	-	-	-	-	(3,374)	-
Conversion of preferred stock to redeemable preferred stock	(1)	(869)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Redeemable preferred stock accretion	-	-	-	-	-	-	(12)	-	-	-	-	-	-	-	(869)	-
Redeemable preferred stock dividend	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(12)	-
Sale of common stock, net of issuance costs	-	-	953	9	-	-	5,167	-	(36)	-	-	-	-	-	(36)	-
Stock based compensation	-	-	-	-	-	(2,578)	2,578	-	-	-	-	-	-	-	5,176	-
Amortization of stock based compensation	-	-	-	-	-	155	-	-	-	-	-	-	-	-	-	-
Issuance and amendment to common stock warrants	-	-	-	-	-	-	1,409	-	-	-	-	-	-	-	1,409	-
Other	-	-	-	-	-	-	-	-	10	-	-	-	-	-	10	-
Net loss	-	-	-	-	-	-	-	-	(6,198)	-	-	-	-	-	(6,198)	-
Balances, December 31, 1999	-	-	14,609	146	-	(2,423)	180,613	-	(165,013)	-	-	-	-	-	13,323	-
Redeemable preferred stock accretion	-	-	-	-	-	-	(24)	-	-	-	-	-	-	-	(24)	-
Redeemable preferred stock dividend	-	-	-	-	-	-	-	-	(99)	-	-	-	-	-	(99)	-
Conversion of redeemable preferred stock	-	-	25	-	-	-	117	-	-	-	-	-	-	-	117	-
Exercise of options	-	-	80	1	-	-	186	-	-	-	-	-	-	-	186	-
Exercise of warrants	-	-	1,135	11	-	-	5,638	-	-	-	-	-	-	-	5,649	-
Conversion of note payable	-	-	676	7	-	-	3,371	-	-	-	-	-	-	-	3,378	-
Amortization of stock based compensation	-	-	-	-	-	-	(38)	-	-	-	-	-	-	-	2,183	-
Issuance of common stock warrants for services provided	-	-	-	-	-	2,221	-	-	-	-	-	-	-	-	-	-
Stock issued to acquire Mushkin	-	-	-	-	-	-	182	-	-	-	-	-	-	-	182	-
Sale of interest in EMS	-	-	952	10	-	-	9,990	-	-	-	-	-	-	-	10,000	-
Other	-	-	-	-	-	-	1,010	-	-	-	-	-	-	-	1,010	-
Net loss	-	-	-	-	-	-	(7)	-	(24)	-	-	-	-	-	(31)	-
Balances, December 31, 2000	-	-	17,477	175	-	(202)	201,038	-	(179,510)	-	-	-	-	-	21,501	-
Redeemable preferred stock accretion	-	-	-	-	-	-	(24)	-	-	-	-	-	-	-	(24)	-
Redeemable preferred stock dividend	-	-	-	-	-	-	-	-	(139)	-	-	-	-	-	(139)	-
Exercise of options	-	-	174	2	-	-	386	-	-	-	-	-	-	-	386	-
Issuance of stock options for services provided	-	-	-	-	-	-	123	-	-	-	-	-	-	-	123	-
Amortization of stock based compensation	-	-	-	-	-	202	-	-	-	-	-	-	-	-	202	-
Sale of stock to Infineon	-	-	4,430	44	-	-	29,956	-	-	-	-	-	-	-	30,000	-
Other	-	-	-	-	-	-	(24)	-	-	-	-	-	-	-	(24)	-
Unrealized loss on marketable securities	-	-	-	-	-	-	-	-	-	-	(11,382)	-	-	-	-	-
Reclassification adjustment for losses on marketable securities included in net loss	-	-	-	-	-	-	-	-	-	-	11,382	-	-	-	-	-
Net loss	-	-	-	-	-	-	-	-	(32,988)	-	-	-	-	-	(32,988)	-
Comprehensive loss	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Balances, December 31, 2001	-	\$	22,081	\$221	-	\$	\$231,479	-	\$(212,661)	-	\$	-	\$(32,988)	-	\$19,039	-

RAMTRON INTERNATIONAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
December 31, 2001, 2000 and 1999

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

DESCRIPTION OF BUSINESS. Ramtron International Corporation (the "Company") designs, develops, manufactures and markets high-performance specialty semiconductor memory devices. The Company has two product lines, ferroelectric non-volatile random access memory ("FRAM") products and high-speed DRAM (dynamic random access memory) products, called Enhanced-DRAM products. Enhanced-DRAM products are sold through the Company's Enhanced Memory Systems, Inc. ("EMS") and Mushkin Inc. ("Mushkin") subsidiaries.

The Company's revenues are derived primarily from the sale of its FRAM and Enhanced-DRAM products and from license and development arrangements entered into with a limited number of established semiconductor manufacturers and involving the development of specific applications of the Company's technologies. Product sales (primarily Enhanced-DRAM) have been made to various customers for use in a variety of applications including consumer electronics, telecommunications, accelerator boards, disk controllers and industrial control devices.

The Company has incurred net losses from operations since its inception. The Company's ability to achieve profitable operations is subject to significant risks and uncertainties including, but not limited to, success in raising additional financing to fund operations, achieving forecasted revenues on supply arrangements, and entering into additional license and research and development arrangements. There is no guarantee that the Company will be successful in addressing such risks.

The Company's current business plan contemplates significant revenue growth in 2002 due to the introduction of new products and established supply agreements. In addition, the Company obtained \$8 million in cash in March 2002 from a private placement of convertible debt (see Note 16). The Company believes these factors, along with cash on hand as of December 31, 2001, will be sufficient to fund its operations at least through December 31, 2002.

USE OF ESTIMATES. The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates.

PRINCIPLES OF CONSOLIDATION. The accompanying financial statements include the consolidation of accounts for the Company's 80% owned subsidiary, Enhanced Memory Systems, Inc. and its wholly owned subsidiaries, Mushkin Inc., acquired in June 2000, and Ramtron Kabushiki Kaisha ("Ramtron K.K."), which was created in July 1996. The Company formed EMS to operate its Enhanced-DRAM business. Mushkin was acquired in June 2000 to expand the Company's Enhanced-DRAM product business. The Company formed Ramtron K.K. to act in a sales and marketing role within Japan for the Company's products and to function as a liaison between the Company and its Japanese alliance partners. To date, Ramtron K.K. has had limited operations. All material inter-company accounts and transactions have been eliminated in consolidation.

Minority interest in the net book value and operating results of EMS are reflected in the accompanying consolidated balance sheets and statements of operations. Minority interest in net losses of EMS were not recorded subsequent to March 31, 2001, due to the minority interest balance being reduced to zero on that date.

REVENUE RECOGNITION. Revenue from product sales to direct customers is recognized upon shipment. The Company defers recognition of sales to distributors that are given rights of return and price protection by the Company until the distributors have resold the products. Revenue from licensing and technology development programs which are refundable, or for which future obligations exist, is recognized over the period the Company is required to provide services under the terms of the agreement. Revenue from royalties is recognized upon the shipment of product from the Company's technology license partners to direct customers. Certain research and development activities are conducted for third parties and such revenue is recognized as the services are performed.

INVENTORIES. Inventories are stated at the lower of cost or market value. The first-in, first-out method of costing inventories is used. The Company writes down its inventory for estimated obsolescence or lack of marketability for the difference between the cost of inventory and the estimated market value based upon assumptions about future demand and market conditions.

PROPERTY, PLANT AND EQUIPMENT. Property, plant and equipment are stated at cost and depreciation and amortization are provided using the straight-line method over the estimated useful lives of the respective assets. Maintenance and repairs are expensed as incurred and improvements are capitalized.

The cost of assets sold or retired and the related accumulated depreciation or amortization are removed from the accounts and the resulting gain or loss is reflected in the consolidated statement of operations in the period in which such sale or disposition occurs.

INTANGIBLE ASSETS. Intangible assets are recorded at cost and are amortized over their estimated useful lives using the straight-line method. The amounts capitalized for patents include the cost of acquiring and defending the patent.

INCOME TAXES. The Company recognizes deferred income tax assets and liabilities for the expected future income tax consequences, based on enacted tax laws, of temporary differences between the financial reporting and tax bases of assets, liabilities and carryovers. The Company recognizes deferred tax assets for the expected future effects of all deductible temporary differences, loss carryovers and tax credit carryovers. Deferred tax assets are then reduced, if deemed necessary, by a valuation allowance for the amount of any tax benefits which, more likely than not, based on current circumstances, are not expected to be realized.

CASH AND CASH EQUIVALENTS. For purposes of the consolidated statements of cash flows, the Company considers all cash and highly liquid investments purchased with an original maturity of three months or less to be cash equivalents.

Included in cash and cash equivalents as of December 31, 2000 are \$5.6 million of debt securities. These securities were classified as available-for-sale and carried at their amortized cost, which approximated fair value. There were no debt securities included in cash and cash equivalents at December 31, 2001.

NET LOSS PER SHARE. Basic earnings per share is computed by dividing reported earnings applicable to common shares by the weighted average shares outstanding. Diluted earnings per share reflects the potential dilution assuming the issuance of common shares for all dilutive potential common shares outstanding during the period. As a result of the Company's net losses, all potentially dilutive securities including warrants, stock options and convertible preferred stock, would be anti-dilutive and thus, are excluded from diluted earnings per share. Potentially dilutive securities excluded from diluted earnings per share were 5,771,000, 8,359,000 and 7,581,800 shares in 2001, 2000 and 1999, respectively.

LONG-LIVED ASSETS. Long-lived assets and certain identifiable intangibles to be held and used by the Company are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Any impaired long-lived assets and identifiable intangibles are written down to fair value.

FAIR VALUE OF FINANCIAL INSTRUMENTS. The Company's financial instruments consist of cash and cash equivalents, short-term trade receivables and payables. The carrying values of cash and cash equivalents, and short-term trade receivables and payables approximate fair value due to their short-term nature.

COMPREHENSIVE LOSS. The Company reports all changes in equity that result from transactions and other economic events from non-owner sources as comprehensive loss.

NEW ACCOUNTING STANDARDS. In June 1998, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards No. 133, "Accounting for Derivative Instruments and Hedging Activities" ("SFAS No. 133"). SFAS No. 133 establishes accounting and reporting standards requiring that every derivative instrument (including certain derivative instruments embedded in other contracts) be recorded in the balance sheet as either an asset or liability measured at its fair value. It also requires that changes in the derivative's fair value be recognized currently in earnings unless specific hedge accounting criteria are met. There was no impact on the Company's financial statements as a result of adopting SFAS No. 133 on January 1, 2001.

In December 1999, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 101, "Revenue Recognition" ("SAB No. 101"), which provides guidance on the recognition, presentation and disclosure of revenue in financial statements. As a result, effective January 1, 2000, the Company changed its method of recognizing revenue on certain payments resulting from technology licensing activities. In prior years the Company recognized non-refundable technology license agreement payments when billed in accordance with contractual arrangements. In accordance with SAB No. 101's guidance, the Company now recognizes revenues related to technology licensing agreements over the licensing and/or royalty bearing period. The effect of this change in revenue recognition was to increase income before cumulative effect of the accounting change by approximately \$135,000 or \$0.01 per share in 2001 and \$150,000 or \$0.01 per share in 2000. The cumulative effect of retroactively applying this change in accounting principle to periods prior to 2000 resulted in a one-time non-cash charge of \$1.5 million and is included in net loss for the year ended December 31, 2000. Had this change in accounting been applied consistently for all periods presented, net loss before change in accounting principle and net loss per common share for 1999 would have been \$7.7 million and \$0.28, respectively.

In June 2001, the FASB issued Statement of Financial Accounting Standards No. 141, "Business Combinations" (SFAS No. 141). SFAS No. 141 requires that all business combinations be accounted for using the purchase method of accounting. The provisions of SFAS No. 141 apply to all business combinations initiated after June 30, 2001.

In June 2001, the FASB issued Statement of Financial Accounting Standards No. 142, "Goodwill and Other Intangible Assets" (SFAS No. 142). SFAS No. 142 changes the accounting for goodwill and certain intangible assets with indefinite lives and requires that they no longer be amortized but be tested for impairment at least annu-

ally at the reporting unit level. The Company will adopt SFAS No. 142 on January 1, 2002. Application of the non-amortization provisions of SFAS No. 142 is expected to result in an annual decrease in operating expenses of approximately \$1.5 million. During 2002, the Company will perform the first of the required impairment tests of goodwill as of January 1, 2002. The Company has not yet quantified the effects of adopting SFAS No. 142 on its financial position or results of operations.

In June 2001, the FASB issued Statement of Financial Accounting Standards No. 143, "Accounting for Asset Retirement Obligations" (SFAS No. 143). SFAS No. 143 requires entities to record the fair value of a liability for an asset retirement obligation in the period in which it is incurred. When the liability is initially recorded, the entity capitalizes a cost by increasing the carrying amount of the related long-lived asset. Over time, the liability is accreted to its present value each period, and the capitalized cost is depreciated over the useful life of the related asset. Upon settlement of the liability, an entity either settles the obligation for the recorded amount or

incurs a gain or loss upon settlement. SFAS No. 143 is effective for fiscal years beginning after June 15, 2002. The Company will adopt SFAS No. 143 on January 1, 2003, but has not yet quantified the effects of adopting SFAS No. 143 on its financial position or results of operations.

In August 2001, the FASB issued Statement of Financial Accounting Standards No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets" (SFAS No. 144). SFAS No. 144 establishes a single accounting model for long-lived assets to be disposed of by sale and requires that those long-lived assets be measured at the lower of carrying amount or fair value less cost to sell, whether reported in continuing operations or in discontinued operations. SFAS No. 144 is effective for fiscal years beginning after December 15, 2001. The Company will adopt SFAS No. 144 on January 1, 2002, and does not expect the adoption of the SFAS No. 144 will have a material impact on the Company's financial position or results of operations.

2. INVENTORIES:

Inventories consist of:

	December 31,	
	2001	2000
	(in thousands)	
Finished goods.....	\$4,501	\$4,222
Work in process	2,974	2,968
	<u>\$7,475</u>	<u>\$7,190</u>

3. PROPERTY, PLANT AND EQUIPMENT:

Property, plant and equipment consists of:

	Estimated	December 31,	
	Useful Lives	2001	2000
	(In Years)	(in thousands)	
Land	--	\$ 668	\$ 668
Buildings and improvements.....	18 and 10	8,942	8,942
Equipment.....	5	14,191	13,763
Office furniture and equipment	5	622	617
		<u>24,423</u>	<u>23,990</u>
Less accumulated depreciation and amortization		<u>(19,482)</u>	<u>(18,395)</u>
		<u>\$ 4,941</u>	<u>\$ 5,595</u>

Depreciation and amortization expense for property, plant and equipment was \$1,087,000, \$1,145,000 and \$1,335,000 for 2001, 2000 and 1999, respectively. Maintenance and repairs expense was \$710,000, \$851,000 and \$757,000 for 2001, 2000 and 1999, respectively.

4. INTANGIBLE ASSETS:

Intangible assets consist of:

	Estimated Useful Lives (In Years)	December 31,	
		2001	2000
		(in thousands)	
Technology license.....	6	\$ 1,983	\$ 1,983
Patents and trademarks.....	17	7,788	7,230
License rights.....	5	2,150	2,150
Goodwill	7-17	13,862	13,862
		25,783	25,225
Less accumulated amortization		(11,107)	(8,761)
		<u>\$14,676</u>	<u>\$16,464</u>

In January 2000, the Company's then wholly owned subsidiary, EMS, entered into a non-exclusive, worldwide technology licensing agreement with Infineon Technologies AG ("Infineon"). In consideration for the grant of the license, Infineon received 20% of the outstanding common stock of EMS. Additionally, the agreement calls for Infineon to provide EMS with up to \$200 million per year of committed wafer manufacturing capacity using Infineon's advanced DRAM and embedded DRAM process capabilities and access to Infineon's design technology. The agreement has a term of six years with optional two-year renewal periods thereafter. The technology license was valued at approximately \$1,983,000 and is being amortized over the life of the agreement. The increase in the carrying value of the Company's investment in EMS of \$1,010,000 as a result of the shares issued to Infineon has been recorded as an increase to additional paid-in capital.

Amortization expense for intangible assets was \$2,346,000, \$2,001,000 and \$955,000 for 2001, 2000 and 1999, respectively.

5. COMMITMENTS:

LEASE COMMITMENTS. The Company has commitments under non-cancelable operating leases expiring through 2006 for various equipment. Minimum future annual lease payments under these leases as of December 31, 2001 are as follows:

2002	\$1,253,000
2003	982,000
2004	739,000
2005	16,000
2006	15,000
	<u>\$3,005,000</u>

Total rent expense on all operating leases was \$698,000, \$490,000 and \$535,000 for 2001, 2000 and 1999, respectively.

EMPLOYMENT AGREEMENTS. The Company has employment agreements with certain employees, which provide for certain payments and continuation of benefits should their employment terminate as defined in the employment agreements.

MANUFACTURING ALLIANCES. The Company has entered into third-party manufacturing agreements for the supply of its FRAM and Enhanced-DRAM products and intends to enter into additional third-party manufacturing agreements for the supply of such products in the future. The Company has relied and will continue

to rely on such manufacturing relationships as the primary source of manufacturing for its products. The Company's third-party manufacturing agreements provide only for a call on the manufacturing capacity of the vendors. The product will be supplied to the Company at prices negotiated between the Company and such third-party manufacturers based on current market conditions. The Company does not engage in any take-or-pay agreements with its manufacturing alliances.

6. STOCKHOLDERS' EQUITY:

REVERSE STOCK SPLIT. On July 20, 1999, the Company's stockholders approved a one-for-five reverse stock split. Common stock information appearing in the accompanying financial statements and notes have been retroactively adjusted to reflect the effects of the reverse split.

PREFERRED STOCK PLACEMENT. In February 1998, the Company issued and sold in a private placement 17,425 shares of Series A Convertible Preferred Stock ("Preferred Stock"), resulting in gross proceeds of approximately \$17.4 million. Each share of Preferred Stock was entitled to receive cumulative dividends at the rate of 6% per annum, payable in shares of Preferred Stock. Except for certain exceptions, the holders of the Preferred Stock had no voting rights. The shares of Preferred Stock, including any accrued dividends thereon, would have automatically converted into common stock on the fifth anniversary of the date of the origi-

nal issuance to the extent any shares of Preferred Stock remained outstanding at that time. Until September 1, 1998, the Preferred Stock was convertible at a Conversion Price of \$50.00. Thereafter, subject to a maximum conversion price, as defined, the Conversion Price was equal to the lowest trading price of the common stock for the 22-trading days immediately preceding the conversion date, less a discount of 7% (beginning September 1, 1998) and increasing by 1% per month to 15% (on or after May 1, 1999).

The conversion discount of the Preferred Stock was considered to be an additional preferred stock dividend. The discount for the beneficial conversion feature, computed at issuance to be \$3,075,000, was recorded as a reduction of preferred stock and an increase to additional paid-in-capital. The discount was recognized ratably as a non-cash deemed dividend over the applicable fourteen month period. If shares were converted prior to the full accretion, no additional discount was taken during the fourteen month period.

On October 21, 1998, the Company suspended conversions of the Preferred Stock because the Company had issued, from its authorized shares, the maximum number of common shares available for such conversions (4,494,768 shares). No further conversions of the Preferred Stock could be effected until the Company's shareholders approved an authorization of additional common stock. At the time of suspension of the Preferred Stock conversions, approximately \$8.9 million face value of Preferred Stock, plus accrued dividends, remained outstanding.

On July 20, 1999, the Company's common stockholders approved the restructuring of the terms of the Company's Preferred Stock and on August 6, 1999, the Company entered into an agreement with the holders of a majority of the outstanding Preferred Stock to restate the terms of the Preferred Stock. In accordance with the restated terms of the Preferred Stock, holders thereof had until the close of business on August 16, 1999, to elect (i) to continue to own shares of Preferred Stock, (ii) to exchange shares of Preferred Stock, including accrued dividends, for cash in the amount per Preferred Stock share equal to 50% of the liquidation value thereof, or (iii) to exchange the shares of Preferred Stock, including accrued dividends, for shares of the Company's Common Stock at an exchange ratio of \$3.75 liquidation value of Series A Preferred per share of Common Stock. Effective as of August 16, 1999, of the 8,878 shares of Preferred Stock outstanding on August 6, 1999, 4,204 shares plus accrued dividends were retired and canceled in exchange for the payment in the aggregate of \$2,290,431 to the former holders thereof; 3,802 shares of Preferred Stock were exchanged for 1,104,746 shares of Common Stock, with an estimated fair value of \$2,400,000; and 872 shares of Preferred Stock with restated terms remained outstanding.

The restated terms of the remaining Preferred Stock include (i) a fixed conversion at \$5.00 per share; (ii) a three-year term expiring

on July 31, 2002; (iii) an adjusted dividend rate of 11% per annum (subject to possible future adjustments); and (iv) a mandatory redemption feature at the date of maturity of \$1,000 per share plus accrued dividends.

For the year ended December 31, 1999, the Company recorded \$396,000 of dividends, \$488,000 of accreted discount and a gain on the settlement of the Preferred Stock of \$5.0 million. The \$5.0 million gain on the settlement of the Preferred Stock included a \$676,000 gain recorded during April 1999 from an earlier Preferred Stock settlement, which required a \$475,000 payment by the Company. The remaining balance of the \$5.0 million gain was determined on August 16, 1999 pursuant to the decisions of holders of the Preferred Stock regarding their restructuring options as described above. The gain was determined on that date by comparing the fair value of the new instrument (i.e., cash, common stock and/or restated Preferred Stock) with the recorded value of the exchanged Preferred Stock (including dividends), less restructuring costs of \$609,000, with the difference being the recorded gain, which was recorded as an increase to additional paid-in capital. Included in these transactions were the reacquisition of \$1.9 million of beneficial conversion features which were recorded in additional paid-in capital and were created as a part of the issuance of the Preferred Stock in 1998.

For the years ended December 31, 2001 and 2000, the Company recorded \$139,000 and \$99,000 of dividends, respectively and \$24,000 of discount accretion on redeemable preferred stock in each year.

COMMON STOCK PLACEMENT AND PRICE ADJUSTMENT. In December 1997, the Company issued and sold in a private placement to certain investment funds 160,000 shares of restricted common stock at an issue price of \$24.65 per share. The common stock purchase price was based on a 15% discount to the average closing bid price for the Company's common stock as reported on The Nasdaq Stock Market ("NASDAQ") during the 5-trading day period immediately prior to the date of the issuance resulting in aggregate gross proceeds to the Company of \$3,944,000. The Company also issued to the placement agents warrants to acquire an aggregate of 16,000 shares of common stock for a purchase price of \$24.65 per share which expire in December 2002.

The agreement covering the sale of common stock provided, subject to certain exceptions, that if during the twelve-month period following the closing of the transaction, the Company sold any shares of common stock for an issue price lower than the purchase price, the purchase price per share of such common stock would be adjusted downward to equal such lower issue price. Any such adjustment would be effected by issuing additional shares of common stock to the holders who purchased common stock in the private placement.

The holders were not required to accept, by way of any such adjustment, a number of common shares which would cause the total number of common shares held by the holders, which were held by them on the date of the agreement, or acquired by them pursuant to the agreement, to exceed 4.99% of the total outstanding common stock of the Company. The Company would be required to effect the 4.99% adjustment by cash refund to the extent necessary to avoid the 4.99% limitation being exceeded. As of December 31, 1998, the additional shares and cash refund to effect the limitation adjustment was 466,338 shares and \$3,223,712, respectively. At December 31, 1998, the Company's obligation to deliver cash to the holders, was recorded as a current liability with a corresponding charge to earnings. During 1999, the 466,338 shares were issued. On July 20, 1999, the Company's shareholders approved a restructuring plan that created a one year promissory note for the cash refund amount of \$3,223,712 at 8% interest maturing July 31, 2000. All or part of the principal and accrued and unpaid interest of the promissory notes were convertible into common stock at the option of the holder of the note at a conversion ratio of one share of common stock for each \$5.00 of principal and accrued interest converted. On February 29, 2000, the promissory note holders elected to convert outstanding principal and accrued interest totaling approximately \$3,378,000 into

675,547 shares of the Company's common stock.

COMMON STOCK PLACEMENT WITH INFINEON TECHNOLOGIES AG. The Company and Infineon Technologies AG entered into a share purchase agreement dated December 14, 2000 pursuant to which Infineon agreed to invest approximately \$30 million in the Company, \$10 million in cash and \$20 million in Infineon common stock (443,488 shares), in exchange for 4,430,005 shares of the Company's common stock. Upon completion of the transaction Infineon owned approximately 20% of the Company's outstanding common stock. Infineon may transfer or sell its interest in the Company's shares in two equal installments twelve and eighteen months from the initial closing date. The companies also entered into a separate cross-license agreement that provides Infineon with a nonexclusive license to the Company's FRAM memory technology, and the Company with access to certain Infineon technologies relating to fabrication of FRAM memories. The initial closing occurred February 2, 2001, providing the Company with \$10 million in exchange for 1,476,668 shares of common stock. The final closing was completed on March 30, 2001, providing the Company 443,488 Infineon shares. All Infineon shares were sold by the Company during 2001.

WARRANTS. Warrants to purchase shares of the Company's common stock are as follows:

	Exercise Price Per Share	Number of Shares (in thousands)		
		Principal Stockholders	Others	Total
Outstanding and exercisable at December 31, 1998.....	\$1.15-\$20.75	1,399	16	1,415
Cancelled	\$5.00	(806)	--	(806)
Granted	\$2.25-\$16.22 ⁽¹⁾⁽²⁾	2,883	--	2,883
Outstanding and exercisable at December 31, 1999.....	\$1.15-\$16.22	3,476	16	3,492
Granted	\$3.75-\$17.00 ⁽³⁾⁽⁴⁾	667	600	1,267
Exercised	\$1.15-\$16.22	(667)	(571)	(1,238)
Outstanding and exercisable at December 31, 2000.....	\$2.25-\$17.00	3,476	45	3,521
Cancelled	\$10.81-\$16.22	(1,683)	--	(1,683)
Outstanding and exercisable at December 31, 2001.....	\$2.25-\$17.00	1,793	45	1,838

All of the above warrants are currently exercisable. Of such warrants, warrants to purchase 240,000 shares of common stock with an exercise price of \$5.00 expire in August and December 2002; warrants to purchase 667,000 shares at \$6.88 expire in December 2007; warrants to purchase 25,000 shares at \$17.00 expire in March 2003; and warrants to purchase 906,000 shares of common stock with an exercise price of \$2.25 expire in 2008 and 2009.

- (1) In December 1999, the Company issued and sold in a private placement 953,000 common stock units at an issue price of \$5.66 per unit. Each unit consisted of 1 share of common stock, one warrant to purchase common stock at \$10.81 per share and one warrant to purchase common stock at \$16.22 per share. The Company issued to the placement agent for this transaction approximately 36,000 warrants to purchase common stock at \$10.81 per share and approximately 36,000 warrants to purchase common stock at \$16.22 per share.

- (2) Pursuant to the restructuring plan approved by the Company's shareholders on July 20, 1999 and in consideration for the National Electrical Benefit Fund (the "Fund") to amend the terms of the Fund's credit facility, the Company agreed to amend the exercise price of outstanding warrants held by the Fund to purchase 805,697 shares of the Company's common stock and extend the expiration date of such warrants to September 30, 2008. The Company also issued new warrants to purchase 100,000 shares of the Company's common stock with an expiration date of August 6, 2009. The amended warrants and the new warrants have an exercise price of \$2.25 per share. The Company has determined that the 905,697 warrants issued to the Fund at \$2.25 per share in conjunction with the amendment and restatement of a note payable due to the Fund had a fair value of \$1,409,000. The Company recorded the fair value as a debt discount to be amortized over the remaining life of the outstanding note payable. The exercise price of these warrants is periodically amendable to equal the lowest price of any stock option or warrant issued by the Company, as defined.
- (3) In January 2000, the Company issued 667,000 warrants to its Chairman of the Board at an exercise price of \$6.88, the fair value of common stock at the date of issuance. The warrants vest on December 31, 2002 and are exercisable through 2007. Vesting of these warrants can be accelerated upon the occurrence of certain events, as defined.
- (4) In January 2000, the Company issued 25,000 warrants to a third party for services provided at an exercise price of \$17.00. These warrants vested immediately, are exercisable through March 2003 and were valued at \$182,000 with the charge being included in sales, general and administrative expenses in the accompanying consolidated statements of operations.

All other outstanding warrants had a nominal value at the time of issuance.

DEFERRED COMPENSATION. Subject to shareholder approval to amend the Company's 1995 Stock Option Plan, options to purchase 500,000 shares of the Company's common stock were approved by the Board of Directors for certain officers of the Company on September 28, 1999, with an exercise price of \$2.25 per share. On December 22, 1999, shareholders approved the amendment of the 1995 Stock Option Plan. On that date, the aggregate intrinsic value of the options was \$2,578,000 and was recorded as deferred compensation. The unamortized compensation expense as of December 31, 2001 and 2000 was approximately \$0 and \$202,000, respectively.

STOCK OPTIONS. The Company has four stock option plans, the Amended and Restated 1986 Stock Option Plan (the "1986 Plan"), the 1989 Nonstatutory Stock Option Plan (the "1989 Plan"), the 1995 Stock Option Plan, as amended (the "1995 Plan"), and the 1999 Stock Option Plan (the "1999 Plan") (collectively, the "Plans"). The Plans reserve 6,235,714 shares of the Company's common stock for issuance and permit the issuance of non-qualified stock options. The exercise price of all non-qualified stock options must be equal to at least 85% of the fair market value of the common stock on the date of grant in the 1986 and 1989 Plans and 95% in the 1995 and 1999 Plans, and the maximum term of each grant is ten years. Options granted become exercisable in full or in installments pursuant to the terms of each agreement evidencing options granted. The 1986 and the 1995 Plans also permit the issuance of incentive stock options. As of December 31, 2001, the Company has not granted any incentive stock options.

The Company accounts for these plans under APB Opinion No. 25, under which no compensation cost is recognized for grants with an exercise price equal to or in excess of the value of the underlying stock on the measurement date.

Had compensation costs for these plans been determined consistent with SFAS No. 123, "Accounting for Stock Based Compensation," ("SFAS No. 123") the Company's net loss and net loss per share would have been reported as follows:

	Year Ended Dec. 31, 2001	Year Ended Dec. 31, 2000	Year Ended Dec. 31, 1999
	(in thousands, except per share amounts)		
Net Loss Applicable to Common Shares			
As reported	\$(33,151)	\$(14,497)	\$(2,035)
Pro forma	(36,235)	(18,533)	(4,338)
Net Loss Per Share			
As reported - basic and diluted	\$(1.57)	\$(0.88)	\$(0.16)
Pro forma - basic and diluted	(1.71)	(1.12)	(0.34)

Because the SFAS No. 123 method of valuation has not been applied to options granted prior to January 1, 1995, the resulting pro forma compensation costs may not be representative of amounts to be expected in future years.

For disclosure purposes, the fair value of stock based compensation was computed using the Black-Scholes option pricing model with the following weighted average assumptions used for 2001, 2000 and 1999 grants:

	2001	2000	1999
Risk Free Interest Rate	4.00%	6.63%	6.63%
Expected Dividend Yield.....	0%	0%	0%
Expected Lives	4.0 years	4.0 years	3.5 years
Expected Volatility	113%	109%	103%

Activity in the Plans is as follows:

	Weighted Average Exercise Price Per Share	Number of Shares		
		(in thousands)		
		Directors and Officers	Employees	Total
Outstanding at December 31, 1998.....	\$29.25	311	496	807
Granted	\$ 2.31	544	482	1,026
Cancelled	\$22.47	--	(53)	(53)
Outstanding at December 31, 1999.....	\$13.92	855	925	1,780
Granted	\$ 6.72	805	846	1,651
Cancelled	\$20.37	(18)	(86)	(104)
Exercised	\$ 2.33	--	(80)	(80)
Reclassification		(122)	122	--
Outstanding at December 31, 2000.....	\$10.33	1,520	1,727	3,247
Granted	\$ 2.33	413	764	1,177
Cancelled	\$14.67	(158)	(375)	(533)
Exercised	\$ 2.23	--	(174)	(174)
Reclassification		(18)	18	--
Outstanding at December 31, 2001.....	\$ 7.56	1,757	1,960	3,717

As of December 31, 2001, 2000 and 1999, 1,792,000, 1,305,000 and 590,000 of the above options were exercisable, respectively, with weighted average exercise price of \$10.90, \$16.27 and \$28.57, respectively.

The weighted average fair value of shares granted during the years ended December 31, 2001 and 2000 was \$1.67 and \$5.12, respectively. For the year ended December 31, 1999 the weighted average fair value of shares granted below fair market value (500,000 shares) and shares granted at market value (526,000 shares) was \$6.64 and \$1.61, respectively.

The following table sets forth the exercise price range, number of shares, weighted average exercise price and remaining contractual lives by groups of options:

Exercise Price Range	Number of Shares Outstanding (in thousands)	Weighted Average	
		Exercise Price	Remaining Contractual Life
\$1.47 - \$ 1.88	998	\$ 1.87	9.78
\$1.90 - \$ 2.25	659	2.22	7.69
\$2.40 - \$ 5.50	793	5.16	8.99
\$5.59 - \$ 7.44	657	7.38	8.18
\$7.62 - \$40.95	610	25.95	5.06
	<u>3,717</u>		

Exercise Price Range	Number of Shares Exercisable (in thousands)	Weighted Average	
		Exercise Price	Remaining Contractual Life
\$1.47 - \$ 1.88	153	\$ 1.88	9.78
\$1.90 - \$ 2.25	648	2.22	7.69
\$2.40 - \$ 5.50	227	5.43	8.99
\$5.59 - \$ 7.44	241	7.39	8.18
\$7.62 - \$40.95	523	28.24	5.06
	<u>1,792</u>		

7. RELATED PARTY TRANSACTIONS:

The National Electrical Benefit Fund (the "Fund") is a principal stockholder of the Company.

TRANSACTIONS WITH THE FUND. Pursuant to a Stock and Warrant Purchase Agreement dated March 13, 1989 between the Company and the Fund, as amended by Amendment No. 1 thereto dated June 29, 1989 (the "1989 Fund Purchase Agreement"), the Company agreed to pay to the Fund, for as long as the Fund owns at least 5% of the outstanding shares of the Company's common stock, a reasonable monthly consulting fee of not more than \$5,000 and to reimburse the Fund for all out-of-pocket expenses incurred in monitoring the Fund's investment in the Company. During 2001, 2000 and 1999, the Company was obligated to pay to the Fund approximately \$80,000 per year in payment of such fees and expenses. Payments made for these obligations were \$471,000, \$0 and \$390,000 during 2001, 2000 and 1999, respectively. \$40,000 and \$447,000 related to this obligation is included in accrued liabilities as of December 31, 2001 and 2000, respectively.

In September 1995, the Company and the Fund entered into a Loan Agreement (the "Fund Credit Facility") which was amended

on August 6, 1999. Pursuant to the terms of the amended credit facility (the "Amended Credit Facility"), the outstanding principal balance under the note as of August 6, 1999 was \$7 million. The Amended Credit Facility bore interest at 8% per annum, payable quarterly. The Fund had the right to convert all or any portion of the amounts outstanding under the Amended Credit Facility into common stock at any time or times before maturity of the loan at a conversion price equal to \$5.00 for each share of common stock. The maturity date of the credit facility, as amended, was July 12, 2002. On August 22, 2001, the Company exercised the prepayment provision of the note by notifying the Fund of the Company's intention to prepay the balance due no later than January 2, 2002. The Fund's common stock conversion privileges remained in effect until payment was made. On November 9, 2001, the Fund elected to accept payment in lieu of a conversion to the Company's common stock. On November 15, 2001, the Company paid to the Fund all outstanding principal and interest amounts due, totaling \$7.1 million.

As consideration for the Fund to amend the terms of the credit facility, the Company agreed to amend the exercise price of outstanding warrants held by the Fund to purchase 805,697 shares of the Company's common stock to \$5.00 and extend the expiration date of such warrants to September 30, 2008. The Company also

issued new warrants to purchase 100,000 shares of the Company's common stock with an exercise price of \$2.35 with an expiration date of August 6, 2009. During 1999, the exercise price of these warrants was reduced to \$2.25. These warrants, as amended, were valued using the Black Scholes option pricing method with a resulting value of approximately \$1.4 million. This amount was accounted for as a discount to the outstanding promissory note payable and was amortized over the remaining life of the note as a charge to interest expense in the Company's consolidated statements of operations. The unamortized discount pertaining to the note as of December 31, 2001 and 2000 are approximately \$0 and \$686,000, respectively.

TRANSACTIONS INVOLVING DIMENSIONAL FUND ADVISORS, INC. Dimensional Fund Advisors, Inc. is a principal shareholder of the Company.

In connection with the restructuring of the Company's Series A Preferred Stock in August 1999, the Company entered into agreements with certain affiliates of Dimensional Fund Advisors, Inc. (the "DFA Affiliates") to issue to each DFA Affiliate an unsecured convertible promissory note (together, the "DFA Promissory Notes") in consideration of the termination of certain Common Stock pur-

chase rights of the DFA Affiliates. Such purchase rights were recorded as a common stock price adjustment liability in balance sheets prior to September 30, 1999. The DFA Promissory Notes, which totaled \$3,223,712, bore interest at 8% per annum and were to mature on July 31, 2000. All or part of the principal and accrued and unpaid interest of the DFA Promissory Notes were convertible into common stock at the option of the holder of the note at a conversion ratio of one share of common stock for each \$5.00 of principal and accrued interest converted. On February 29, 2000, the DFA Affiliates elected to convert all outstanding principal and accrued interest totaling approximately \$3,378,000 into 675,547 shares of the Company's common stock.

8. SUPPLEMENTAL CASH FLOW INFORMATION:

Cash paid for interest and income taxes:

	<u>2001</u>	<u>2000</u>	<u>1999</u>
	(in thousands)		
Interest	\$533	\$815	\$557
Income taxes	--	--	--

9. INCOME TAXES:

As of December 31, 2001, the Company had approximately \$163 million of net operating loss carryovers for tax purposes. Further, the Company has approximately \$1.5 million of research and development tax credits available to offset future federal and state income taxes. The net operating loss and credit carryovers expire through 2021. The Internal Revenue Code contains provisions, which may limit the net operating loss carryforwards available to be used in any given year if certain events occur, including significant changes in ownership interests.

The components of the net deferred income tax asset were as follows:

	<u>December 31,</u>	
	<u>2001</u>	<u>2000</u>
	(in thousands)	
Deferred tax assets:		
Other, including capital loss carryovers	\$ 15,300	\$ 7,500
Net operating loss carryovers	60,900	58,000
	<u>76,200</u>	<u>65,500</u>
Valuation allowance	(76,200)	(65,500)
	<u>\$ --</u>	<u>\$ --</u>

The provision for income taxes includes the following:

	December 31,		
	2001	2000	1999
	(in thousands)		
Current:			
Federal	\$ --	\$ --	\$ --
State	--	--	--
Total current.....	--	--	--
Deferred:			
Federal	(11,000)	(4,640)	(2,040)
State	(1,600)	(700)	(290)
Total deferred benefit.....	(12,600)	(5,340)	(2,330)
Increase in valuation allowance	12,600	5,340	2,330
Total provision	<u>\$ --</u>	<u>\$ --</u>	<u>\$ --</u>

Income taxes computed using the federal statutory income tax rate differ from the Company's effective tax rate primarily as a result of state taxes and the increase in the valuation allowance. During 2001 and 2000, net operating loss carryovers of approximately \$4.7 million and \$6.1 million, respectively, expired.

Tax expense other than payroll and income taxes were \$119,000, \$399,000 and \$586,000 for 2001, 2000 and 1999, respectively.

10. LOSS ON DISPOSITION OF MARKETABLE EQUITY SECURITIES

During 2001, the Company sold 443,488 shares of Infineon common stock the Company held, consisting of all of the shares obtained through the share purchase agreement with Infineon dated December 14, 2000. The Company received proceeds of \$8.6 million from these sales. During 2001, the Company recorded a loss of \$11.4 million on the disposition and impairment of these securities.

11. ACQUISITION OF MUSHKIN INC.

On June 14, 2000, the Company entered into a merger transaction among the Company, a wholly owned subsidiary of Ramtron International Corporation, Mushkin Inc. ("Mushkin"), and the Mushkin shareholders. In this transaction Ramtron acquired all of the issued and outstanding shares of Mushkin for 952,380 shares of Ramtron common stock valued at \$10,000,000. The acquisition was accounted for as a purchase. Accordingly, Ramtron's consolidated financial statements include the results of operations of Mushkin since the acquisition date. The total purchase price was allocated based on fair value of assets acquired and liabilities assumed as follows:

	(in thousands)
Fair value of tangible net assets	\$ 667
Goodwill	9,333
	<u>\$10,000</u>

Goodwill is being amortized over an estimated useful life of 7 years using the straight-line method. Given the current unsettled and volatile economic environment, it is possible that a future evaluation of the realizability of the goodwill recorded in this transaction could result in a determination that an impairment charge could be required, and such impairment charge could be material.

Summarized below are the unaudited pro forma results of operations of the Company as if Mushkin had been acquired at January 1, 2000.

	Pro Forma	
	Year Ended December 31	
	(in thousands, except per share data)	
	2000	1999
Revenue	\$32,186	\$31,097
Net loss	(14,422)	(6,898)
Net loss applicable to common shares	(14,545)	(2,735)
Net loss per share- basic and diluted	\$ (0.85)	\$ (.20)

12. SEGMENT AND GEOGRAPHIC AREA INFORMATION:

The Company's reportable segments are those that are based on the Company's method of internal reporting, which generally segregates the strategic business units due to differences in products and distributions.

The Company's operations are conducted through three business segments. FRAM licenses, manufactures and distributes ferroelectric nonvolatile random access memory products. EMS licenses, manufactures and distributes high-speed DRAM products. Mushkin distributes high-speed DRAM products in the aftermarket through both direct and e-commerce sales channels.

The accounting policies for determining segment net income (loss) are the same used in the consolidated financial statements. There are no internal sales between segments or geographic regions.

	2001			2000			1999		
	FRAM	EMS	Mushkin	FRAM	EMS	Mushkin	FRAM	EMS	Mushkin
Product sale	\$ 4,541	\$ 1,158	\$11,514	\$ 3,988	\$ 7,594	\$ 6,680	\$ 3,508	\$ 9,640	\$ --
License & development fees	2,602	102	--	2,000	--	--	4,500	700	--
Royalties	295	--	--	188	--	--	1,501	--	--
Customer sponsored research and development	--	2,644	--	4,541	1,088	--	4,562	460	--
	7,438	3,904	11,514	10,717	8,682	6,680	14,071	10,800	--
Operating costs	(16,874)	(14,274)	(12,678)	(20,264)	(12,214)	(6,526)	(18,257)	(12,439)	--
Operating income (loss)	(9,436)	(10,370)	(1,164)	(9,547)	(3,532)	154	(4,186)	(1,639)	--
Other	23	268	--	14	707	--	221	(17)	--
Net income (loss)	\$ (9,413)	\$ (10,102)	\$ (1,164)	\$ (9,533)	\$ (2,825)	\$ 154	\$ (3,965)	\$ (1,656)	\$ --
Total assets	\$ 19,729	\$ 6,270	\$ 9,820	\$ 19,074	\$ 8,683	\$ 10,605	\$ 21,080	\$ 8,300	\$ --
Depreciation and amortization	\$ 1,287	\$ 783	\$ 1,363	\$ 1,625	\$ 786	\$ 735	\$ 1,900	\$ 390	\$ --
Capital additions	\$ 393	\$ 27	\$ 13	\$ 206	\$ 427	\$ 2	\$ 249	\$ 67	\$ --
Intangible additions	\$ 434	\$ 124	\$ --	\$ 232	\$ 2,307	\$ 9,333	\$ 233	\$ 2,718	\$ --

Net income (loss) before cumulative effect of accounting change excludes interest income, interest expense and special charges on a total basis of \$(12,309,000), \$(670,000) and \$(577,000) in 2001, 2000 and 1999, respectively, not allocated to business segments.

During 2000, intangible additions include \$9,333,000 related to the acquisition of Mushkin and \$1,983,000 of technology licenses acquired through the issuance of EMS common stock.

Revenue amounts and percentages for major customers representing more than 10% of total revenues are as follows:

	2001				2000				1999			
	FRAM		Enhanced DRAM		FRAM		Enhanced DRAM		FRAM		Enhanced DRAM	
	(in thousands)											
Customer A	--	--	--	--	\$6,587	25%	--	--	\$8,000	32%	--	--
Customer B	--	--	--	--	--	--	\$4,058	16%	--	--	\$3,490	14%
Customer C	\$2,667	12%	--	--	--	--	--	--	--	--	--	--
Customer D	2,567	11%	--	--	--	--	--	--	--	--	--	--

The following geographic area data include revenues based on product shipment destination, license and development payor location and customer-sponsored research and development payor location. The data presented for long-lived assets is based on physical location.

Geographic Area Net Revenues:

	2001	2000	1999
	(in thousands)		
United States	\$17,651	\$14,658	\$ 9,146
Japan	772	7,706	10,766
Canada	291	1,392	2,755
United Kingdom	561	541	923
Germany	683	627	643
China/Hong Kong	629	--	--
Italy	1,674	--	--
Rest of world	595	1,155	638
Total	<u>\$22,856</u>	<u>\$26,079</u>	<u>\$24,871</u>

Geographic Area Long-lived Assets (Net):

	2001	2000	1999
	(in thousands)		
United States	\$19,276	\$21,810	\$12,327
Thailand	294	171	229
Rest of world	47	78	162
Total	<u>\$19,617</u>	<u>\$22,059</u>	<u>\$12,718</u>

13. DEFINED CONTRIBUTION PLAN:

The Company has a cash or deferred compensation plan (the "401(k) Plan") intended to qualify under Section 401(k) of the Internal Revenue Code of 1986, as amended (the "Code"), in which substantially all full-time employees are participants. Participants in the 401(k) Plan may make maximum pretax contributions, subject to limitations imposed by the Code, of 20% of their compensation. The Company may make, at the Board of Directors' discretion, an annual contribution on behalf of each participant. No amounts have been contributed by the Company under the 401(k) Plan on behalf of participating employees.

14. CONTINGENCIES:

PATENT INTERFERENCE PROCEEDING. A patent interference proceeding, which was declared in 1991 in the United States Patent and Trademark Office (the "Patent Office") between the Company, National Semiconductor Corporation ("National") and the Department of the Navy in regard to one of the Company's issued United States patents, is continuing. The patent involved covers a basic ferroelectric memory cell design invention the Company believes is of fundamental importance to its FRAM business in the United States. An interference is declared in the Patent Office when two or more parties each claim to have made the same invention. The interference proceeding is therefore conducted to determine which party is entitled to the patent rights cov-

ering the invention. In the present interference contest, the Company is the "senior" party, which means that it is in possession of the issued United States Patent and retains all rights associated with such patent. The other two parties involved in the interference are the "junior" parties, and each has the burden of proof of convincing the Patent Office by a preponderance of the evidence that it was the first to invent the subject matter of the invention and thus is entitled to the corresponding patent rights. Only the Company and National filed briefs in this matter. Oral arguments were presented before the Patent Office on March 1, 1996.

The Patent Office decided the interference on May 6, 1997, holding that all of the claims were patentable to National, one of the "junior" parties. The other "junior" party, the Department of the Navy, was not granted any patent claims pursuant to the interference proceedings. On June 20, 1997, the Company filed a Request for Reconsideration with the Patent Office concerning the interference decision. Pursuant to the Request for Reconsideration, the Company requested that five separate issues be reconsidered because, from the Company's perspective, they were either ignored or misconstrued in the original decision. A decision on the Request for Reconsideration was issued on November 19, 1998, again holding that all of the claims were patentable to National. On January 9, 1999, the Company appealed the decision of the Patent Office on one of the interference counts directly to the Court of Appeals for the Federal Circuit. On February 2, 2000, the Court of Appeals vacated and remanded the decision of the Patent Office for further proceedings. The Company also filed complaints in Federal District Court in the District of Columbia seeking a review of the decision of the Patent Office on the remaining interference counts, which are still pending. The Company remains in possession of the issued United States Patent and retains all rights associated with such patent while it pursues its appeal options. The "junior" party has received no rights associated with this patent decision and will not receive any such rights as long as the appeal process continues. Under a

Patent Office decision on August 13, 2001, the Company was found to be the first to invent, however, the Patent Office concluded that the enablement and best-mode requirements for patent issuance had not been met by the Company. In October 2001, both the Company and National filed a Request for Reconsideration with the Patent Office. The Patent Office response is still pending. If the Company's Request for Reconsideration is denied, the Company will appeal the decision of the Patent Office.

If the Company's patent rights that are the subject of the interference proceeding are ultimately lost or significantly compromised, the Company would be precluded from producing FRAM products in the United States using the Company's existing design architecture, absent being able to obtain a suitable license to exploit such rights. If such patent rights are ultimately awarded to National, and if a license to such rights is not subsequently entered into by the Company with National, National could use the patent to prevent the manufacture, use or sale by the Company, and/or its licensees, within the United States of any products that come within the scope of such patent rights, which would include all FRAM products as currently designed, and which would materially adversely affect the Company. The Company has vigorously defended its patent rights in this interference contest and will continue such efforts. The Company is uncertain as to the ultimate outcome of the interference proceeding, as well as to the resulting effects upon the Company's financial position or results of operations.

OTHER LITIGATION. The Company is involved in other legal matters in the ordinary course of business. Although the outcomes of any such legal actions cannot be predicted, management believes that there is no pending legal proceeding against or involving the Company for which the outcome is likely to have a material adverse effect upon the Company's financial position or results of operations.

15. QUARTERLY DATA (UNAUDITED):

The following unaudited information shows selected items by quarter for the years 2001 and 2000.

	2001				2000			
	Q1	Q2	Q3	Q4	Q1 ⁽¹⁾	Q2	Q3	Q4
	(in thousands except per share data)							
Revenues	\$3,455	\$3,351	\$7,535	\$8,515	\$5,571	\$6,209	\$8,132	\$6,167
Gross margin, product sales	908	613	1,024	1,202 ⁽²⁾	1,003	1,769	1,760	1,731
Operating loss	(6,630)	(6,022)	(3,611)	(4,707)	(3,018)	(2,117)	(2,980)	(4,810)
Net loss applicable to common shares	(6,555)	(6,231)	(15,872) ⁽³⁾	(4,493)	(4,540)	(2,190)	(3,016)	(4,751)
Net loss per share - basic and diluted	\$(0.35)	\$(0.28)	\$(0.72)	\$(0.20)	\$(0.30)	\$(0.13)	\$(0.17)	\$(0.27)

- (1) Quarterly data for the first quarter of 2000 has been restated to comply with Staff Accounting Bulletin No. 101, Revenue Recognition. The effect of the change on the first quarter of 2000 was to increase net loss applicable to common shares by \$1.5 million, or \$0.10 per share. The effect of this change on the second, third and fourth quarters of 2000 was not material.

(2) Excludes provision for inventory write-off of \$912,000.

(3) Includes charges of \$11.9 million resulting from an other than temporary decline in the market value of Infineon stock held by the Company.

16. SUBSEQUENT EVENTS:

On March 14, 2002, the Company announced it signed an agreement to complete a new round of funding for gross proceeds of \$8.0 million. The transaction is expected to close before March 31, 2002. The Company will issue \$8.0 million of 5 year, 5% fixed rate, convertible debentures to Infineon, Halifax Fund, managed by The Palladin Group, L.P. and Bramwell Capital Corporation, managed by Cavallo Capital. The debentures are convertible into the Company's common stock at a fixed conversion price of \$3.76, which is equal to 110% of the five-day volume weighted average price ("VWAP") of the Company's common stock prior to the transaction signing. The Company may force conversion of the debenture after 18 months, provided the VWAP of the Company's common stock is at least 200% of the conversion price for 20 or more of 30 consecutive trading days. The debenture is secured by a Deed of Trust on the Company's headquarters facility in Colorado Springs, Colorado and certain accounts receivable. In addition, 700,435, 5-year common stock warrants will be issued to the investors at an exercise price of \$4.28 per share. In connection with its debenture investment, Infineon and the Company have entered into a memorandum of understanding to expand their existing relationship. Under the expanded agreement, Infineon has agreed to extend its committed wafer manufacturing capacity for EMS products through 2010. Infineon has also agreed to fund product development projects with the Company's EMS subsidiary, provide earlier access to new Infineon process and design technologies and cross license memory related intellectual property.

REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To Ramtron International Corporation:

We have audited the accompanying consolidated balance sheets of Ramtron International Corporation (a Delaware corporation) and subsidiaries as of December 31, 2001 and 2000, and the related consolidated statements of operations, cash flows and stockholders' equity for each of the three years in the period ended December 31, 2001. These financial statements and the schedule referred to below are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Ramtron International Corporation and subsidiaries as of December 31, 2001 and 2000, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States.

Our audit was made for the purpose of forming an opinion on the basic financial statements taken as a whole. The schedule listed in the index of financial statements is presented for purposes of complying with the Securities and Exchange Commission's rules and is not part of the basic financial statements. This schedule has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, fairly states in all material respects the financial data required to be set forth therein in relation to the basic financial statements taken as a whole.

As explained in Note 1 to the financial statements, effective January 1, 2000, the Company changed its method of accounting for recognizing revenue on technology licensing activities.

/S/ Arthur Andersen LLP
Denver, Colorado,
March 18, 2002.



Ramtron Securities

The Company's common stock trades on the Nasdaq National Market tier of The Nasdaq Stock Market under the symbol "RMTR." The Company has not paid any dividends since its inception and does not intend to pay any cash dividends in the foreseeable future. The Company intends to retain any earnings to finance its operations. As of March 26, 2002, the Company had 2,204 registered shareholders of its common stock.

Transfer Agent

For information regarding lost stock certificates or changes of address, please contact the Company's transfer agent:

Citibank, N.A.
111 Wall Street
20th Floor, Zone 7
New York, NY 10005

Shareholder and Financial Information

For additional copies of this report or other financial information, Ramtron shareholders or other interested investors can write to:

Ramtron International Corporation
Investor Relations Department
1850 Ramtron Drive
Colorado Springs, CO 80921
719-481-7000

Directors and Officers

L. David Sikes	Chairman of the Board
William W. Staunton, III	Director and Chief Executive Officer
Greg B. Jones	Director and President-Technology Group
William G. Howard	Director
Albert J. Hugo-Martinez	Director
Eric A. Balzer	Director
Klaus Fleischmann	Director
Harald Eggers	Director
LuAnn D. Hanson	Chief Financial Officer and Vice President of Finance
Craig W. Rhodine	Chief Operating Officer

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